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**ARIZONA DEPARTMENT OF ADMINISTRATION**
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**DATE**: **November 26, 2008**

**To:** **Interested Parties**

**From:** **Stacy Ingalls, Senior Procurement Officer**

**Re:** **REQUEST FOR INFORMATION**

In accordance with ARS 41-2555, the State Procurement Office is issuing the following Request For Information (RFI) on behalf of the Information Services Department (ISD) of the Arizona Department of Administration (ADOA). Interested parties are invited to review the following RFI and respond. Any questions shall be directed to the Procurement Officer.

Responses to this RFI are due by 3:00 PM Arizona time, December 14, 2008

## 1. Overview

ADOA is requesting that relevant suppliers provide the State of Arizona information regarding the identification and use of software that could benefit the State and address the Service Oriented Architecture requirements.

All responses to the RFI shall be received by December 14, 2008. Please note that all information provided will be made available to the State Leadership and is considered public record. Information will **not** be held confidential.

## 2. Organization background

The State of Arizona is comprised of approximately 110 State Agencies, Boards and commissions. To service their specific needs IT resources have been deployed in a decentralized structure. Larger agencies have acquired and deployed more robust IT infrastructures than small and medium size agencies. Because of the variations of IT applications and infrastructure throughout state government, the state is requesting information on SOA software for possible integration and reuse of state services. Common enterprise applications and infrastructure for the state are currently AFIS, HRIS and AzNet.

### Problem

Diverse application development over time has fostered a complex and costly environment for application development in State government. This environment is characterized by:

- High redundancies of hardware, software, with various customizations.
- Missed efficiency opportunities through lacking or inconsistent information, little exchange, varying data ownership and an overall lack of communication between systems.
- High costs of maintenance modification and extension through unmanaged interfaces.

The State of Arizona is interested in the possibility of implementing an IT infrastructure that supports all of the diverse lines of business on an enterprise level.[1] The State is interested in obtaining information on a standards-based environment that accommodates all stakeholders – different levels of government, as well as private industry partners. To build and maintain that environment over time, an inclusive governance model where all stakeholders can share their data etc.

Any enterprise environments would need to be designed as mission critical[2] since they will be hosting shared services. Some web services will likely be more "mission critical" than others, the recommended Service Oriented Architecture (SOA) environment would need to be designed to accommodate very high availability and scalability.

**Premise**

An Enterprise Service Bus (ESB)[3] is fundamentally a messaging infrastructure that provides an abstraction layer on top of enterprise messaging systems to exploit the value of messaging without writing code. An ESB provides an architecture that facilitates the task of integration of enterprise applications and services built on, for example, .NET, J2EE, C/C++, and other legacy environments, using an event-driven service-oriented architecture.

An ESB is a software architecture, found in a category of middleware infrastructure products usually based on Web services standards[4] and GITA Policies[5] which provides foundational services for more complex service-oriented architectures via an event-driven and XML-based messaging engine (the ESB).

An ESB facilitates the ability of integration architects and developers to exploit the value of messaging without writing code. The foundation of an ESB is built on loosely coupled functions or services that are deployed where needed, as opposed to the more traditional EAI

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[1] Given the range of application environments we expect to interact with, our intent is to describe the ESB required in a vendor neutral language. Whatever products or tools that may come to be used will need to interact with several application environments.

[2] The term **mission critical** (or **mission-critical**) refers to any factor (equipment, process, procedure, software, etc.) which is crucial to the successful completion of an entire project.

[3] There is some disagreement on whether an enterprise service bus is an architectural style, a software product, or a group of software products. While use of an ESB certainly implies adherence to a particular architecture, the term "enterprise service bus" is almost always used to denote the software infrastructure that enables such an architecture.

An Enterprise Service Bus (ESB) brings flow-related concepts such as transformation and routing to a Service-Oriented Architecture. An ESB can also provide an abstraction for endpoints. This promotes flexibility in the transport layer and enables loose coupling and easy connection between services.

[4] A '***Web service***' (also **Web Service**) is defined by the W3C as "a software system designed to support interoperable machine-to-machine interaction over a network" (http://www.w3.org/TR/ws-arch/)
See also GITA web standards at http://www.azgita.gov/policies_standards/#web

[5] GITA Policy P750 and the listed Web Services: Policies at http://www.azgita.gov/policies_standards/

hub and spoke pattern.

**RFI Requirements**

We are asking suppliers to please provide information to the items below on how your products and services solutions may be able to meet the State's inquiry for an ESB solution. Please respond to the following questions/inquiries. (note that standards and policies web links are listed in footnotes)

A. Does your product support heterogeneous applications, information, and services?

B. Will your products/services/solution support J2EE, C/C++, and .NET environment as they are all used in state government?

C. Is your product (or solution) consistent with Arizona IT policies and standards[6] as implemented by the Arizona Government Information Technology Agency (GITA)?[7] [8]

D. The product/services/solution should support information sharing across government entities as well as public and private, subject to data sharing policies. Please identify if your company's product and solution is able to do this, along with any additional applicable information.

E. Interoperability standards are defined[9]; in most cases, communications will be via SOAP[10] messaging, data will be formatted in XML[11], and services need to have Web service interfaces. Please advise if you company's product/services/solution meets these standards and requirements.

F. Are your company's product/services/solution able to handle online interactions via either Web or voice channels? Regardless of which input channel is used, the same services and interoperability processes will be utilized.

G. The State is interested in knowing about product/services/solution that would support both local (departments) and enterprise environments. For example: A department may choose to have its own SOA environment (possibly from a different vendor) for use within the department. However, most shared services should be managed by the enterprise environments. Please describe your company's product/services/solution ability to support both local

[6] http://www.azgita.gov/policies%5Fstandards/
[7] GITA Policy P750 and the listed Web Services Policies
[8] http://www.azgita.gov/soa/principles.htm
[9] W3C - By publishing open (non-proprietary) standards for Web languages and protocols, W3C seeks to avoid market fragmentation and thus Web fragmentation. http://www.w3.org/Consortium/
[10] SOAP at http://www.w3.org/TR/soap/
[11] XML at http://www.w3.org/XML/

(departments) and enterprise environments.

H. Describe if your product/services/solutions have open systems architecture, interoperability, portability, open source, interfaces across platforms utilizing open and/or de-facto standard protocols, integrates with other software and databases without requiring custom programming or substantial modifications, Please describe the extent of each functionality listed above and others if not listed in this section.

I. Advise if your company's product/services/solution has what the State views as the basic components: an ESB, a service registry, a module for orchestrating component services, a module to govern web service policies, identity provider services, and operational policies and tools to manage the environment.

J. Advise if extensive auditing capability of both user access details as well as the data they accessed.

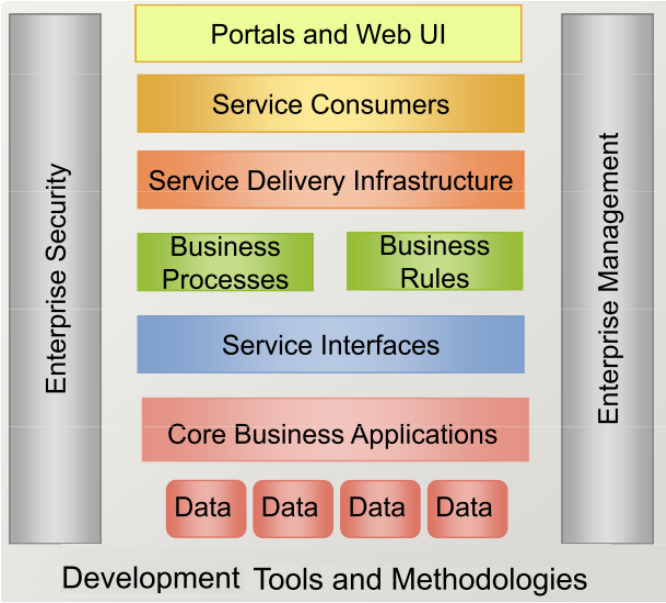
K. Describe how your company's product/service/solution will add measurable value and capability to existing infrastructure and the impact it will have on existing deployed architectures.

L. Monitoring capabilities for message latency and related characteristics described in an Interagency Service Level Agreements.

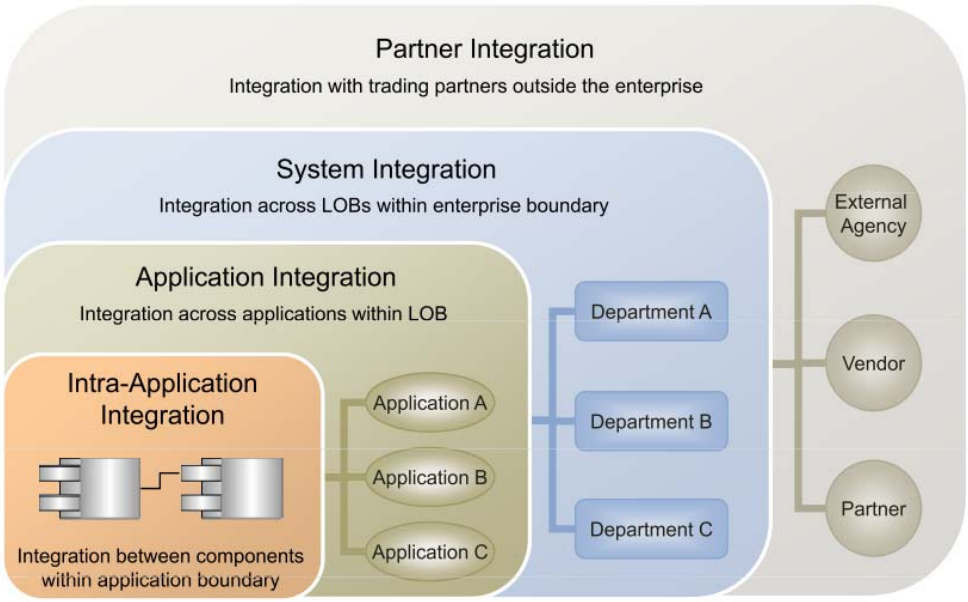
M. Is your company's product/services/solution able to facilitate service levels, responding appropriately to higher and lower priority users?

N. Does your company's product/services/solution support queuing, holding messages if applications are temporarily unavailable?

3. Below represents what the State views as the logical architecture. This is not the required structure. Please advise if this is not your company's idea of logical architecture structure and define the architectural structure that you endorse.




4. Below represents what the State views as the logical Integration Model. This is not the required structure. Please advise if this is not your company's view of the integration model and define the integration model that you endorse.

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Responses to this RFI shall be submitted, either electronically via SPIRIT or in writing. All written correspondence shall be delivered to the Procurement Officer at the following:

State Procurement Office
ATTN: Stacy Ingalls, Senior Procurement Officer
100 N. 15th Ave.
Suite 104

Phoenix, AZ 85007
Phone: (602) 542-9134
E-mail: stacy.ingalls@azdoa.gov

In accordance with ARS 41-2555 and AAC R2-7-G301, all submissions shall generally be considered as public records. Any respondents who intend to submit confidential information should contact the Procurement Officer to inquire as to the State's ability to maintain the confidentiality of their intended submission. Although it may be possible to keep certain information confidential for a limited period of time following the completion of the RFI, the State does not warrant that it can or will keep any information as confidential. A respondent that merely labels a document as confidential does not constitute an agreement with the State to keep the document confidential. Please feel free to contact the Procurement Officer if you have any questions.